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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/777,484      | 02/12/2004  | Jack J. Kolle        | TEMP0011            | 2326             |

7590 06/05/2006

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EXAMINER

STEPHENSON, DANIEL P

ART UNIT PAPER NUMBER

3672

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,484

Applicant(s)

KOLLE ET AL.

Examiner

Daniel P. Stephenson

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3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) 30-74 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☒ Claim(s) 21,22 and 24-28 is/are rejected.
- 7) ☒ Claim(s) 23 and 29 is/are objected to.
- 8) ☒ Claim(s) 1-74 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/1/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of group I in the reply filed on 3/17/06 is acknowledged. The traversal is on the ground(s) that "the method of Claim 30 (Invention II) can only be implemented using a valve that cycles between a first and second position, and that Claims 1-29 (Invention I) define a valve that cycles between a first and second position." This is not found persuasive because the valve of the method (group II) does not require the member within another member of group I. Thus a different search is required.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21, 22, 24-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolle et al. '701. Kolle et al. '701 discloses an apparatus for at least partially interrupting flow of a pressurized fluid that is circulating through a conduit. It has a housing (40a), and a valve (58,82,41) substantially enclosed by the housing. The valve has an inlet port (69, 54) configured to couple fluid communication with the conduit through which the pressurized fluid is circulating; an outlet port (56) configured to couple in fluid communication with the conduit through which the pressurized fluid is circulating; a plurality of fluid passages configured to selectively couple in fluid communication with the inlet port; and a first member (58, 82) that is

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actuated by the pressurized fluid to cycle between an open position and a closed position. When in the closed position, the first member at least partially interrupts a flow of the pressurized fluid through the outlet port. There is a second member (41) disposed within the first member (82, 58) the second member is reciprocated back and forth between first and second positions during each cycle by the pressurized fluid. The position of the second member determines which of the plurality of fluid passages is coupled in fluid communication with the inlet port. The plurality of passages are: (a) a first passage (80) through which the pressurized fluid is applied to the first member to cause the first member to cycle to the closed position, thereby closing the outlet port, when the second member is in the first position; (b) a second passage through which the pressurized fluid is applied to the second member (90c) to cause the second member to shift to the second position when the first member is in the closed position; (c) a third passage (92) through which the pressurized fluid is applied to the first member to cause the first member to cycle to the open position when the second member is in the second position; and (d) a fourth passage (87) through which the pressurized fluid is applied to the second member to cause the second member to shift to the first position when the first member is in the open position. The second member is disposed coaxially within the first member (82, 58). The housing is configured to isolate a portion of the conduit. When the portion of the conduit that is isolated is coupled in fluid communication with a portion of the conduit that is not isolated by a high velocity fluid flow course, interruption of pressurized fluid in the conduit by cycling the valve causes a negative pressure pulse in the section that is isolated. The high velocity flow course is defined in part by the housing. The conduit is disposed inside a borehole, and the at least partial interruption of the flow of pressurized fluid caused by the valve generates a seismic pulse that

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propagates into a formation surrounding the borehole adjacent to the valve. The seismic pulse enabling information about the formation and about a location of the valve to be determined.

The apparatus is disposed at a closed end of the conduit, the at least partial interruption of the flow of pressurized fluid by the valve generates a pressure pulse that propagates upstream of the valve while the valve is closed, thereby transferring a momentum of the fluid to the apparatus to urge the apparatus to move in a downstream direction.

***Allowable Subject Matter***

4. Claims 1-20 are allowed.

5. Claims 23 and 29 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshino et al., Van Steenwyk et al., Walter '577 and the pre-grant publications '797 and '530 to Janssen et al. and Prain et al., respectively, all show similar features to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P. Stephenson whose telephone number is (571) 272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

DPS *815*